



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference 03961.107349		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US2004/028041	International filing date (<i>day/month/year</i>) 27.08.2004	Priority date (<i>day/month/year</i>) 27.08.2003	
International Patent Classification (IPC) or both national classification and IPC A61K7/075, A61K7/08, A61K7/11			
Applicant PROFOUND BEAUTY INC. et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 10 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 7 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input checked="" type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 19.10.2005		Date of completion of this report 16.01.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Loloiu, C Telephone No. +49 89 2399-7245 	

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/US2004/028041

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-66 as originally filed

Claims, Numbers1-28, 30-36 as originally filed
29 received on 21.10.2005 with letter of 19.10.2005**Drawings, Sheets**

1/7-7/7 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/US2004/028041**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

IV. Lack of unity of invention

1. In response to the invitation to restrict or pay additional fees, the applicant has:

- ☐ restricted the claims.
☒ paid additional fees.
☐ paid additional fees under protest.
☐ neither restricted nor paid additional fees.

2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.

3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is

- ☐ complied with.
☐ not complied with for the following reasons:

4. Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:

- ☒ all parts.
☐ the parts relating to claims Nos. .

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-36
	No: Claims	-
Inventive step (IS)	Yes: Claims	-
	No: Claims	1-36
Industrial applicability (IA)	Yes: Claims	1-36
	No: Claims	-

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**IAP20 Rec'd PCT/PTO 17 FEB 2006
International application No. PCT/US2004/028041**Re Item I****Basis of the report**

The amendments filed with the letter dated 19.10.2005 introduce subject-matter which extends beyond the content of the application as filed, contrary to Article 34(2)(b) PCT. The amendments concerned are the following:

- (i) in claims 1 and 25 "are formulated for use for specific combinations of scalp rate of sebum production and hair texture"; "combinations..";
- (ii) in claim 33 "based on the customer's scalp type and hair texture"
- (iii) claim 37 in its entirety.

With the letter of reply the applicant does not explain where the basis for the above amendments could be found and such basis is not evident from the application documents. Therefore, the present report was established as if the above amendments would had not been introduced, consequently for examination purposes there will be taken into consideration claims 1-28 and 30-36 as originally filed and claim 29 as filed with the letter dated 19.10.2005.

Re Item IV.**Lack of unity of invention**

The present application relates to two separate inventions as follows:

a) Invention 1 as defined in claims 1-15, 25-28, 33

A kit of proportional shampoos and conditioners comprising:

- (i) a plurality of shampoos, wherein the individual shampoo includes anionic, nonionic and amphoteric surfactants and cationic conditioning polymers;
- (ii) a plurality of proportional conditioners, wherein the individual conditioner contains at least one amphoteric surfactant, one cationic polymer, one film former and one zwitterionic compound selected from the amino acids or proteins.

The method for diagnosing, cleansing and conditioning the hair using the mentioned shampoos and conditioners.

b) Invention 2 as defined in claims 16-24,29-32,34-36

A kit containing a plurality of styling aids, each individual styling aid having an active component including a humectant, a polymeric complex and a carrier, the polymeric complex being a combination of a film former, static discharger and volumizing resin.

A method for styling the hair comprising the step of applying the styling aids described above.

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The present application relates to two different technical problems:

i) the problem of washing and conditioning the hair;

ii) the problem of styling the hair,

solved by two different solution, i.e. two compositions (or to be more specific two kits) having no compositional similarities.

The only technical feature shared by the two embodiments is a cosmetic composition containing a film former and the method of applying this composition on the hair.

Such a characteristic however could not be considered as a common special technical feature within the meaning of R 13.1 PCT and 13.2 PCT for the two embodiments, since compositions containing film-forming polymers are trivial ones in the field, well known to those of ordinary skill in the hair-care art, as well as to consumers.

It was considered that the question of lack of unity a priori arises.

Re Item V.

1 The following documents are referred to in this communication:

D1: DR. JOHN GRAY: "The world of hair, hair care routines" P AND G BEAUTY SCIENCE, [Online] 13 February 2003 (2003-02-13), pages 122-126, XP002311950
R e t r i e v e d f r o m t h e I n t e r n e t :
URL: http://www.pg.com/science/haircare/hair_twh_122.htm [retrieved on 2004-12-22]

D2: US-A-5 726 137

D3: US-A-6 090 773

D4: WO 03/045340 A

D5: WO 97/25963 A

D6: "Shampoo and conditioners recommendation chart" BACK TO BASICS, [Online] 3 February 2003 (2003-02-03), XP002311951 Retrieved from the Internet:
URL: <http://www.backtobasics.com/trends/whatsright.htm> [retrieved on 2004-12-23]

D7: DR. JOHN GRAY: "The world of hair, hair care routines" P AND G BEAUTY SCIENCE, [Online] 13 February 2003 (2003-02-13), pages 140-148, XP002333823

D8: US-A-6426064

D9: GB-A-2366727

D10: WO 00/21495 A

I As to the first invention

1 Objections pursuant to Article 33(3) PCT

1.1 Although novel, the subject-matter of the present application does not meet the criteria of Article 33(1) PCT, because the subject matter of claims 1-15, 25-28 and 33 does not involve an inventive step in the sense of Article 33(3)PCT.

1.1.1

The present claims 1-15 pertain to a method of diagnosing and appropriately cleansing and conditioning the hair.

D1 (see on pages 122-126) pertains to the field of hair care and provides good hair care routines for treating the hair properly so as to prevent any damage. It is to be noted that D1 also discloses several aspects which should be taken into consideration when choosing a shampoo and a conditioner. D1 even refers to the scalp type (normal, greasy or dry), the hair texture (fine) or the condition of the hair (permed, coloured, bleached) (see on pages 122-123). Moreover D1 refers specifically to the combined aspects of scalp and hair type in the part referring to the fine and greasy hair.

On the other hand D6 relates to the same problematic and recommends certain trends/tips to be followed in order to achieve an appropriate cleaning and conditioning taking into account the criteria related to the scalp and hair type or of the hair condition. It is clear from D1 and D6 that the selection of the shampoo and conditioner should be done in close relationship with the type of scalp and hair and with the condition of the hair.

1.1.2

The subject-matter of the claims 1-15 differs from the disclosure of D1/D6 prior art documents in that a specific shampoo containing anionic, nonionic and amphoteric surfactants as well as cationic conditioning polymer and a specific conditioner comprising an amphoteric surfactant, a cationic conditioning polymer, a film former and a zwitterionic compound are selected.

This selection of a plurality of shampoos and conditioners cannot be considered as involving an inventive step for the following reasons.

The ingredients specified to be mandatory in the proportional shampoos and/or conditioners according to the present application represent conventional ingredients known to be used in a multitude of standard hair care formulations.

For example:

- D2 (see particularly example 1) discloses conditioning compositions comprising an amphoteric surfactant (i.e. cocamidopropyl betaine) and cationic conditioning film forming polymers (Polyquaternium-10 and 7);
- D3 (see on col. 1 l.34 -45, claim 1 and the examples) relates to shampoo compositions comprising a mixed nonionic, amphoteric and anionic surfactant system and a conditioner portion comprising at least two cationic conditioning polymers;
- D4 (see especially example 2) discloses a hair treatment composition comprising a betaine surfactant, a guar cationic conditioning polymer, amino acids and a film forming polymer;
- D5 pertaining to leave-on hair conditioning compositions which can impart enhanced hair conditioning and damage protection describes compositions comprising hair styling resins, cationic polymeric conditioning agents, amino acids and protein hydrolysates.

The selection of the shampoo/conditioner according to the present claims 1-15 amounts merely to a non-inventive isolation of parts of the prior art.

The applicant pointed out that the presently claimed method for diagnosing and cleansing and conditioning the hair is distinguishable from the prior art in that two, and possibly three, characteristics of the hair and scalp are considered when choosing a shampoo and conditioner. The examiner can not share this opinion since it is obviously known to the skilled person and furthermore belongs to the common general knowledge to consider the hair and scalp type when choosing the shampoo and conditioner, fact also confirmed by the general disclosure of D1/D6. It might be that not all the steps presently required are summarised in only one reference, however, the mere combination of trivial elements known from different sources which does not amount to an unexpected technical effect cannot be considered inventive.

One could even consider that taking into consideration more than one characteristic of the hair and scalp when making the choice of the shampoo and conditioner to be used

can be considered a difference to the prior art. In that case, it should be mentioned that defining such criteria represents nothing more than the expression of a desiderata since, in fact, a solution of how to achieve the appropriate cleaning and conditioning which takes into account several characteristics of the hair is not provided in the application. As mentioned above the composition of the chosen shampoo and conditioner is a conventional one. It can be concluded that the present claim 1 represent merely a definition of a problem to be solved and not the solution to this problem.

In conclusion, the claimed method represent not more than the stages encompassed in a recommendation chart followed in any professional hair salon as well as by individuals at home in order to choose the shampoo and/or conditioner appropriate for the specific type of scalp or hair.

Such a routine is well within the general knowledge of the person skilled in the art of hair care and can not be considered as amounting to an inventive step.

1.1.3

The subject-matter of claims 25-28 and 33 relates to a so-called "kit" including a shampoo and a conditioner as individual components, the shampoo being defined by its content of anionic, nonionic and amphoteric surfactants as well as cationic conditioning polymers and the conditioner by the content of an amphoteric surfactant, one cationic conditioning polymer, one film former and one zwitterionic compound. Although a "kit-of-parts" formulation was used, two separate individual components are in reality claimed since no functional unity, involving a necessary and direct interaction, between the two components exists.

Since none of the two parts neither the shampoo (e.g. in view of D3) nor the conditioner (e.g. in view of D4) are not novel not to say inventive (see the reasoning in the above paragraph) and furthermore the effect on the hair obtained by the combined use of the two is known and easily predictable, namely the cleaning and further conditioning of the hair, the subject-matter of said claims being only a juxtaposition of known elements cannot be considered inventive.

II As to the second invention

1. Objections pursuant to Article 33(3) PCT

1.1 The subject-matter of claims 16-24 pertains to a method of styling the hair which, in

order to achieve the appropriate hair-styling, takes into consideration both the human hair diversity as well as the environmental criteria.

As a preliminary remark, it has to be mentioned that the steps involved in the claimed method simply amount to a hair-styling chart followed in any professional hair saloon as well as by individuals at home in order to obtain a hair-style adapted to the specific hair texture and relative climatic conditions.

Such a routine comes within the common general knowledge and cannot amount to an inventive step.

On the other hand, prior art documents relating to similar methods are also available. For example, D7 contains a collection of both practical and scientific advices related to the issue of hair-style, including a detailed description of the physiological factors affecting the hair volume; according to D7 achieving a long-lasting volume is one of the most frequent reasons for styling hair (see particularly on pages 141-142).

On the other hand, D8 (see the examples) also pertaining to hair styling compositions, discloses the summarized results of tests showing that several variables, such as the hair texture and the climatic conditions, namely the relative humidity in the atmosphere, are extremely important in order to achieve maximum styling-benefits in formulating a hairstyling composition. D8 also emphasises that in order to optimize the performance of the compositions a non-negligible amount of trial-and-error experimentations had to be carried out.

Using the common general knowledge, or alternatively the combined teachings of D7 and D8, the subject-matter of the present claims 16-22 and 24 appears to be obvious and cannot amount to an inventive step.

- 1.2 The only feature which could have been relevant for establishing an inventive contribution over the prior art is the feature of claim 23. The subject-matter of said claim concerns the choice of a specific styling aid, comprising a humectant, a polymeric complex and a carrier, especially the nature of the polymeric complex, namely a combination of a film-former, a static discharger and a volumizing resin, being referred to.

Document D8 (col. 1 l.25-40) relates to compositions for treating the hair in order to

achieve enhanced styling benefits such as excellent anti-static properties, improved manageability, improved curl retention and less stickiness, greasiness or build-up problems and proposes the use of a polystyrene sulphonate, the same polymer used as a preferred static discharger in the present application, as providing unique properties to the hair.

Document D9 (page 11 par.3) on the other hand, relating to hair-setting compositions, discloses hair-setting compositions containing the same static discharger, namely Flexan 130 polystyrene sulphonate, and a film-forming polymer (e.g. polyquaternium-11) as well as humectants and water carrier.

For its part D10 (see on page 6 I.14 to page 7 I.2), provides improved hair volumizer formulations and specifically discloses hair volumizers containing MQ silicone resins and additional film-forming polymers (see examples 16,17 and Table X).

In view of the above citations of the prior art, the skilled person would regard it a normal design procedure to combine all the features set out in the present claim 23. Moreover the Applicant failed to establish in the present application any unexpected interrelationship due to the specific combination of the polymeric ingredients that was not already known from the prior art for each of the components.

- 1.3 The same line of argumentation applies mutatis mutandis to the subject-matter of claims 29-32 and 34-36, pertaining to a so-called "kit of styling aids" comprising a plurality of styling aids. Although a "kit-of-parts" type of formulation was used, a plurality of styling aids having similar active component are claimed, since no functional unity, involving a necessary and direct interaction between the plurality of components exists. Since the individual styling aids are not considered inventive (see the reasoning in the above paragraphs), the subject-matter of said claims, being only juxtaposition of known elements, cannot be considered inventive.